UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 17 2004

OFFICE OF WATER

MEMORANDUM

SUBJECT: Clean Water Act Regulation of Mine Tailings

FROM: Diane Regas
Director, Office of Wetlands, Oceans and Watersheds

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Director, Office of Wastewater Management

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Director, Office of Science and Technology

TO: Randy Smith
Director, Office of Water, Region X

Thank you for your recent inquiry regarding the Clean Water Act (CWA) regulation of activities in waters of the United States associated with hard rock mining in Alaska and, more specifically, discharges of mine tailings from the proposed Kensington Mine. Your questions focus on the applicability of CWA sections 404 and 402 to the placement of mine tailings in impounded waters of the United States.

We have coordinated this matter with your staff in Region X and the Alaska Operations office, several offices within EPA Headquarters, and officials at the Headquarters and Alaska District offices of the Army Corps of Engineers (Corps). This memorandum serves to provide the clarification Region X and the Alaska District are seeking with regard to this issue. This memorandum describes a regulatory framework and how it applies to a general set of facts.[1] It

[1]While these questions have arisen in the context of a revised proposal being considered for the Kensington mine project, the regulatory approach outlined in this memorandum is generally applicable to other comparable mining proposals. The Kensington proposal, as we understand it, would involve the construction of a dam to impound the waters of Slate Creek and Lower Slate Lake and the placement of gold mine tailings into the impoundment created in Lower Slate Lake pursuant to an individual 404 permit and a subsequent discharge from the impoundment back to Slate Creek waters. The determination of which CWA permitting program applies to a particular discharge of mine tailings is fact-dependent

does not represent decisions about the suitability of a permit for any particular project.

EPA and the Corps agree that the discharge of fill material to construct the dam for a tailings impoundment as well as the discharge of the mine tailings into the impoundment is subject to permitting under CWA section 404, which governs the discharge of dredged or fill material. EPA and the Corps also agree that any discharge of pollutants from the impoundment to a downstream water (such as Slate Creek in the Kensington project) is subject to CWA Section 402, the National Pollutant Discharge Elimination System (NPDES) program. This discharge from the impoundment, like any discharge needing an NPDES permit, is subject to effluent limitations based on technology-based standards (e.g., any applicable effluent guidelines such as 40 C.F.R. Part 440) and any more stringent limits needed to comply with state water quality standards.

2002 Rulemaking Defining "Fill Material" and "Discharge of Fill Material"

Under section 404 of the CWA, the Corps (or an authorized State) issues permits for discharges of dredged or fill material into waters of the United States. Discharges of all other pollutants into waters of the U.S. are subject to permits issued by EPA (or authorized States) under the NPDES program. To bring greater clarity and consistency to how EPA and the Corps regulate discharges of pollutants, the agencies recently revised their regulatory definitions of "fill material" and "discharge of fill material." 67 Fed. Reg. 31129 (May 9, 2002). The regulations now define "fill material" as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of the water. 67 Fed. Reg. 31130; see also 40 C.F.R. §232.2, 33 C.F.R. §323.2(e). Examples of fill material, as defined by the regulations, include overburden from mining and materials used to create any structure or infrastructure in waters of the United States. Similarly, the phrase "placement of overburden, slurry, tailings or similar mine-related materials" was added to the definition of "discharge of fill material" to provide further clarification as to the type of activities generally regulated under section 404. See 40 C.F.R. §232.2; 33 C.F.R. §323.2(f).

We believe that the text of the rule makes clear that mine tailings placed into impounded waters of the U.S., as proposed by the Kensington mine project, are regulated under section 404 of the CWA as a discharge of fill material, and that effluent discharged from the impoundment to a downstream water, such as Slate Creek is covered by section 402. Mine tailings placed into the proposed impoundment will have the immediate effect of filling the areas of water into which

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and, in part, turns on the effect of the particular discharge on the receiving waterbody in question. This memorandum is specific to impoundments and thus our analysis today focuses solely on the discharge of mine tailings into impoundments designed to hold such materials. Any other type of proposed project, such as open water disposal of mine tailings or any other similar materials, would be subject to a different regulatory analysis.

they are discharged and therefore fall within the scope of section 404. As a result, the regulatory regime applicable to discharges under section 402, including effluent limitations guidelines and standards, such as those applicable to gold ore mining (see 40 C.F.R. Part 440, Subpart J), do not apply to the placement of tailings into the proposed impoundment. See 40 C.F.R. §122.3(b). This result is confirmed by the preamble to the rule which explained the dividing line between section 402 discharges and section 404 discharges by noting that EPA would continue to regulate under section 402 "discharges (such as suspended or settleable solids) [that] can have the associated effect, over time, of raising the bottom elevation of a water due to settling of waterborne pollutants." 67 Fed. Reg. 31135. Here, the effluent discharged from the impoundment into Slate Creek will contain pollutants in the form of suspended and settleable solids, materials that will have, at most, an incidental filling effect. The addition of those pollutants to the Creek from this impoundment associated with an industrial operation would therefore be subject to regulation under section 402.

In sum, under both the plain language of the rule and the Agencies' interpretation of the regulation in its preamble, the mine tailings that are to be placed into an impoundment are covered by section 404 and effluent discharges from the impoundment into a receiving water are subject to permitting under section 402.

The Waste Treatment Exclusion

In 1992, EPA and the Corps were approached to address CWA regulation of the Kensington project, as then proposed, and a related mining proposal, the A-J Mine. Under the approach articulated in the 1992 memorandum from then EPA Assistant Administrator LaJuana Wilcher to the Region's Water Director Charles Findley regarding the A-J and Kensington proposals, issuance of a section 404 permit for the impoundment of waters for mine tailings would, under certain circumstances, create a waste treatment system that was excluded from the regulatory definition of "waters of the United States." In those circumstances, neither a section 404 permit nor a section 402 permit would be required to discharge tailings into the treatment system. A section 402 permit would be needed for any discharge of pollutants from the treatment system into waters of the United States. The 1992 memorandum provided that, as part of the analysis required under the section 404(b)(1) Guidelines, the physical impacts of the discharge of mine tailings into the system also would be considered.

The 1992 memorandum, however, was developed to clarify the regulatory approach to discharges of mine tailings in light of the Corps' and EPA's then differing definitions of "fill material" and "discharge of fill material." Our current analysis of how the 2002 rulemaking applies to the permitting of discharges of mine tailings into impounded waters will help to ensure a more effective environmental review of any adverse impacts associated with these types of projects. The rulemaking did not, however, alter EPA's interpretation of the waste treatment exclusion contained in 40 C.F.R. §122.2. While the permitting framework described in this memorandum does not invoke the exclusion for the discharge of mine tailings to impounded waters, neither does it preclude its use for waste treatment systems or system components that meet the definition in 40 C.F.R. §122.2.

Applicability of State Water Quality Standards

You also have asked how water quality standards would apply to the permitting of this project under section 404. The regulatory approach articulated in this memorandum does not alter the manner in which water quality standards currently apply under section 404 of the CWA or, in particular, how they would apply to the Kensington proposal.

With regard to the Kensington Mine project, we understand that the company's current proposal would result in a tailings pile behind the dam that is some 54 feet above the current water level in Slate Lake and, in the process, result in filling the entire Lake.[2] In addition to the analysis of the availability of upland alternatives, the Corps' environmental review of the project under the section 404(b)(1) Guidelines must specifically consider compliance with water quality standards and the chemical, physical, and biological impacts associated with the proposed conversion of waters to non-waters that are contemplated to result from the discharge of fill material. Before a section 404 permit may be issued, the Corps must conclude, among other determinations, that the proposed project would not cause or contribute to significant degradation after all practicable steps have been taken to avoid and minimize environmental impacts and to mitigate for remaining adverse aquatic impacts.

In addition, under the Guidelines, "no discharge of dredged or fill material may be permitted if it causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable State water quality standard." 40 C.F.R. §230.10(b)(1). In circumstances like the proposed Kensington mine, the Guidelines do not require that the proposed discharges comply with water quality criteria within the impoundment since the impoundment is the "disposal site" proposed to be authorized to be filled under the Corps' section 404 permit. The regulations define "disposal site" as "that portion of the 'waters of the United States' where specific disposal activities are permitted and consist [sic] of the bottom surface area and any overlying volume of water." 40 C.F.R. §230.3(i).

In this particular case, because the entire lake is proposed to be within the permitted disposal site specified under section 404(a), the section 404(b)(1) Guidelines require the Corps to consider, during the permitting process, whether the discharge of fill material would cause or contribute to a violation of water quality criteria or impairment to designated uses in the adjacent waters of Slate Creek (i.e., waters outside the impoundment). The State, in making decisions with regard to water quality certification, determines whether the project would cause or contribute to a violation of water quality standards, at a minimum, in waters upstream or downstream (outside) of the disposal site, considering, among other factors, whether future discharges from the impoundment to downstream waters will meet discharge limits that assure

[2]Additionally, we understand that there may be some water on top of the disposal site after the conclusion of the permitted activity. Any determination by the government to reassert CWA jurisdiction over this water would generally not occur until after site reclamation has been completed consistent with an approved mine reclamation plan.

compliance with applicable downstream water quality standards.[3]

State water quality standards also include antidegradation policies consistent with 40 C.F.R. §131.12. EPA interprets section 131.12(a)(1) of the federal requirements for antidegradation policies to be satisfied with regard to fills in waters if the discharge will not result in "significant degradation" as defined under section 230.10(c) of the section 404(b)(1) Guidelines. See Water Quality Standards Handbook, 2d Ed. (U.S. EPA Aug. 1994), at 4-5. Accordingly, unless a state indicates otherwise, a discharge of fill material which complies with the "no significant degradation" requirement of the Guidelines would be considered also to satisfy the "existing uses" requirement of the state's antidegradation policy.

I appreciate the assistance you and your staff have provided on this matter. I trust that the information provided in this memorandum meets your needs. Should you have any additional questions, please contact me or have your staff contact John Meagher at 202-566-1353.

cc: Major General Strock
Director of Civil Works

[3]States retain the authority to adopt use designations for waters that prohibit or substantially restrict discharges into certain waters, such as outstanding natural resource waters (see 40 C.F.R. §131.12(b)(3)) and to protect those uses through the exercise of their certification authority.